

## Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Purchased Terms	Description	For Project No	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
P0041321	MEC002-VU	1	1	Net 30	MT-4140QT-R2.250	AISI 4140 Quenched & Tempered Steel Round Bar 2.250"" Dia : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT			6 10/19/2018	6	S122005	Stock	10/18/2018	\$ 18.57 / ft	8	\$111.42	Metaux Castle		
		2			MT-4140QT-R3.000	AISI 4140 Quenched & Tempered Steel Round Bar 3.000"" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT			4	4	S122006	Stock	10/18/2018	\$ 50.92 / ft	8	\$203.68	Metaux Castle		
		3			MT-4140QT-R3.250	AISI 4140 Quenched & Tempered Steel Round Bar 3.250"" Dia. MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR ASTM 4140 QT or ASTM 4142 QT			4	4	S122007	Stock	10/18/2018	\$ 52.18 / ft	8	\$208.72	Metaux Castle		

Print

Plex 10/26/2018 4:19 PM *darl Tallis Andrew*



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO041321

**Supplier:** MEC002-VU  
Metaux Castle  
P.O. Box 4090 Stn A  
Toronto  
ON  
M5W 0E9 Canada

**PO No:** PO041321  
**PO Date:** 10/11/18  
**Due Date:** 10/19/18  
**Purchase Order Revision:**  
**Revision Date:**  
**Ship-To Contact:** Phone:

E-MAILED  
OCT 11 2018

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

## Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	A1	MT-4140QT-R2.250		AISI 4140 Quenched & Tempered Steel Round Bar 2.250" Dia. : MAT'L: AISI 4130 QUENCHED & TEMPERED ROUND BAR AS PER ASTM 4140 QT OR ASTM 4142 QT	Firmed	-	10/19/18	6 ft	6 ft	6 ft	\$18.57/ft	\$111.42
2	M	MT-4140QT-R3.000		AISI 4140 Quenched & Tempered Steel Round Bar 3.000" Dia.  MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR  ASTM 4140 QT or ASTM 4142 QT	Firmed	-	10/19/18	4 ft	4 ft	4 ft	\$50.92/ft	\$203.68



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# PURCHASE ORDER PO041321

## Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
3 <i>M</i>		MT-4140QT-R3.250		AISI 4140 Quenched & Tempered Steel Round Bar 3.250" Dia.  MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR  ASTM 4140 QT or ASTM 4142 QT	Firmed -		10/19/18	4 ft	0 ft <i>/4ft</i>	4 ft <i>M 18/10/26</i>	\$52.18/ft	\$208.72
4 <i>M</i>		MT-4140QT-R5.000		AISI 4140 Quenched & Tempered Steel Round Bar 5.000" Dia.  MATERIAL : AISI 4140 QUENCHED & TEMPERED STEEL ROUND BAR  ASTM 4140 QT or ASTM 4142 QT	Firmed -		10/19/18	4 ft <i>/4ft</i>	0 ft <i>M 18/10/26</i>	4 ft	\$110.05/ft	\$440.20



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
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# PURCHASE ORDER PO041321

## Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
5		M7075T6S0.375X6.000		7075-T6S Sheet .375" Thick Plate X 6" Wide : MATERIAL: 7075- T6/T62/T651 ALUMINUM SHEET OR PLATE SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 OR MATERIAL: 7075- T6/T62/T65/ ALCLAD ALUMINUM SHEET OR PLATE SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A- 250/13 OR AMS 4048 / 4049 OR ASTM B209	Firmed	-	11/5/18	24 ft	0 ft	24 ft	\$24.25/ft	\$582.00

Grand Total: \$1,546.02

## Order Notes

### Procurement Quality Clauses

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 dart notification by supplier
- A043 retention of quality documents
- A048 counterfeit parts avoidance, detection, mitigation and disposition program
- A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 10/11/18 11:46 AM dart.lavoie.chantal

## Chantal Lavoie

---

**From:** Desbiens, Marc <mdesbien@amcastle.com>  
**Sent:** Wednesday, October 03, 2018 9:06 AM  
**To:** Chantal Lavoie  
**Subject:** RE: quote

Good Morning Chantal,

price and delivery on mat'l.

*24.23*  
4140QT round bar 2.250" x 6 ft \$ 18.57 Ft 3 days *111.42* *145.39*  
4140QT round bar 3" x 4 ft \$ 50.92 Ft 3 days *152.76* = *64.41* cu.  
4140QT round bar 3.250" x 4 ft \$ 52.18 Ft 3 days *208.72* *68.08*  
4140QT round bar 5" x 4 ft \$ 110.05 Ft 3 days *143.60*

~~47.4 H900 round bar 2.250" x 12 ft offer cond. A \$ 46.40 Ft 3 days~~

~~17.4 H1150 round bar 15" x 12 ft Is this 1.50" dia?~~

~~304 bar 0.500" x 2.5" x 12 ft Must regret, not available~~

~~6061t6 bar 1.250" x 1.250" x 12 ft \$ 8.18 Ft 8-9 days~~  
~~6061t6 bar 1" x 12" x 12 ft \$ 38.62 Ft 8-9 days~~

*7075-t6 plate 0.375" x 6" x 24 ft \$ 24.25 Ft 2-3 weeks*

*31.6437 \$ Cu.*

Thanks

Marc Desbiens  
Inside sales representative  
Castle Metals, Montreal, QC  
Direct line 514-795-8176  
1-800-806-6660 ext 52226  
Fax # 1-855-892-6370

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PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 1 of 1

Shipment No:3730261

Shipment Details		Final Destination Branch - TOR			
Date Shipped	F.O.B. ORIGIN	Freight Terms	Carrier	BOL No	
17-OCT-18		Prepaid	MANITOULIN	3730261-2	
<b>Ship From:</b> A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		
<b>Delivery No.</b> 122289420	<b>Mill/Source</b> NUCOR STEEL NEBRASKA	<b>Heat Number</b>  H9921	<b>Mech Id</b> H9921	<b>PCS</b> 1	<b>Width (IN)</b>  82.6947
<b>Details</b>	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS				

899L499C

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:

OCT 17 2018 Date: Name: SUE KALOUS

Date Printed: 17-OCT-2018 02:53:23 PM



# CERTIFICATE OF MATERIAL TEST REPORTS

<b>H-A Industries</b> A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327												<b>Customer:</b> A. M. Castle & Co. 1420 Kensington Road Suite 220 Oak Brook, IL 60523											
<b>MANUFACTURER (MILL)</b> NUCOR STEEL NEBRASKA						<b>CUST. ORDER NO.</b>																	
IC	HEAT NO.	MECHANICAL ID				ORDER NO.				SHIP QUANTITY	DATE												
13783	100891119	H9921				11807659				7860	10-JUL-18												
<b>DESCRIPTION OF MATERIAL</b>																							
2.2500.RD 4140 ALLOY.HR.Q & T.SR/SF.A193-B7.216.0000-288.0000																							
<b>CHEMICAL ANALYSIS %</b>																							
C	MN	P	S	SI	CU	NI	CR	MO	AL														
.41	.94	.012	.023	.26	.14	.06	.97	.18	.030														
<b>JOMINY HARDENABILITY Rc</b>																							
1 57	2 57	3 57	4 57	5 57	6 57	7 57	8 55	9 54	10 53	11 50	12 49	13 47	14 46	15 46	16 46	18 46	20 43	22 43	24 41	26 39	28 39	30 39	32 39
<b>METALLURGICAL</b>																							
<b>MACROETCH</b> S: 1 R: 1 C: 3				<b>NAFTA</b> YES	<b>GRAIN SIZE</b> 5																		
<b>CONTINUOUS CAST</b> YES	<b>REDUCTION RATIO</b> 11		<b>FROM IC</b> 14186																				
<b>COUNTRY OF MANUFACTURE</b> United States	<b>COUNTRY OF MELT</b> US																						
<b>HEAT TREATMENT</b>																							
<b>AUSTENITIZE MINUTES</b> 46	<b>AUSTENITIZE TEMP °F</b> 1550	<b>TEMPER MINUTES</b> 54	<b>TEMPER TEMP °F</b> 1220	<b>WATER QUENCH TEMP</b> 80																			
<b>HARDNESS</b>						<b>MECHANICAL</b>																	
Location	Type		Location	Type		Location	Tensile PSI	Yield .2% PSI	ELONG 2" %	R.A. %													
SURF	HBW	300	MID	HBW	299	MID	139528	120547	21.2	61													
SURF	HBW	307				MID	133884	113894	22.4	61.2													
<b>CONFORMANT TO SPECIFICATIONS</b>																							
ASTM A29-16 ASTM A193-17 GR B7 ASTM A322-13 ASTM A304-16 ASTM A434-17 CLASS BC ASTM A962-17 ASME SA193_17_ED_B7 EN 10204:2004 TYPE 3.1 HA IND. QUALITY MANUAL ISO 9001:2015 ISSUE 1 REV. 1 12/8/17																							
T=136932 Y=117852 E=21.2 RA=61 MID																							

H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1.

H-A CERTIFIES THAT THE METAL WHICH IS THE SUBJECT OF THIS CERTIFICATION IS MERCURY FREE AND WAS NOT EXPOSED TO ANY RADIOACTIVE SOURCE. MATERIAL DOES NOT CONTAIN ANY POLYBROMINATED BIPHENYLS (PBB) OR POLYBROMINATED DIPHENYL ETHERS (PBDE). NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

NAME: JAN L. CARUSO  
 TITLE: MANAGER OF TECHNICAL SERVICES

*Jan L. Caruso*  
 SIGNATURE:

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M1-4140QT-R2-250  
 DATE: 18/10/26

PO / BATCH NO.: P0041321/5122005

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 654  
 QUANTITY INSPECTED: 654  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2250"  
 THICKNESS RECEIVED: 2.250"  
 SHEET SIZE ORDERED: —  
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>(N)</u>	
CORRECT FINISH	<u>(Y)</u> N	
CORROSION	Y <u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u> N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u> N	<i>ASTM A29 (Eng Approved)</i>
CORRECT THICKNESS	<u>(Y)</u> N	
PHOTO REQUIRED	Y <u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u> N	<i>HT. 100891119</i>
CORRECT MATERIAL IDENTIFICATION	<u>(Y)</u> N	
CORRECT M# ON THE MATERIAL	<u>(Y)</u> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<u>(Y)</u> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>(N)</u>	

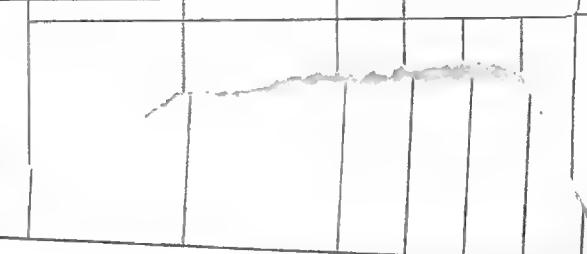
CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u>MLee</u>
DATE: <u>18/10/26</u>	DATE: <u>OCT 26/18</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# CERTIFICATE OF MATERIAL TEST REPORTS

<b>H-A Industries</b> A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327												<b>Customer:</b> A. M. Castle & Co. 1420 Kensington Rd Suite 220 Oak Brook, IL 60523											
<b>MANUFACTURER</b> REPUBLIC STEEL						<b>CUST. ORDER NO.</b>																	
IC	HEAT NO.	EL	(829776)	MECHANICAL ID	H1024	ORDER NO.	11862263	SHIP QUAN:	8125	CITY	DATE												
1907																							
<b>DESCRIPTION OF MATERIAL</b> 3.0000.RD 4140 ALLOY.HR.Q & T.SR/SF.A193-B7. 20-288.0000																							
<b>CHEMICAL ANALYSIS %</b>																							
C	MN	P	S	SI	CU	NI	CR	MO	AL														
.41	.91	.012	.031	.25	.13	.16	.96	.20	.026														
<b>JOMINY HARDENABILITY Rc</b>																							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30	32
58	57	57	57	56	56	55	54	53	51	48	47	45	43	41									37
<b>METALLURGICAL</b>																							
MACROETCH				NAFTA YES	GRAIN SIZE 5																		
S: 1																							
R: 1																							
C: 1																							
CONTINUOUS CAST YES	REDUCTION RATIO 18.4	FROM IC 14199																					
COUNTRY OF MANUFACTURE United States	COUNTRY OF MELT US																						
<b>HEAT TREATMENT</b>																							
AUSTENITIZE MINUTES 100	AUSTENITIZE TEMP °F 1550	TEMPER MINUTES 68	TEMPER TEMP °F 1210	WATER QUENCH TEMP 80																			
<b>HARDNESS</b>						<b>MECHANICAL</b>																	
Location	Type		Location	Type		Location	Tensile PSI	Yield .2% PSI	ELONG 2" %	R.A. %													
SURF	HBW	296	MID	HBW	290	MID	139538	114014	21	61													
SURF	HBW	298				MID	137428	117214	20.4	61.4													
MID	HBW	289																					
<b>CONFORMANT TO SPECIFICATIONS</b>																							
ASTM A193-17 GR B7 ASTM A322-13 <u>ASTM A2916</u> ASTM A434-17 CLASS BC ASTM A304-16 ASTM A962-17 ASME SA193-17 ED B7 HA IND. QUALITY MANUAL ISO 9001:2015 ISSUE 1 REV. 1 12/8/17 UNS# G41400 EN 10204:2004 TYPE 3.1																							
3) T:144625 Y:123794 E:19.5 RA:58.2																							
H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1.										RUSO NAME: JAN L. CALF TECHNICAL SERVICES TITLE: MANAGER O. <i>Caruso</i> SIGNATURE: <i>JAN L. C.</i>													
H-A CERTIFIES THAT THE METAL WHICH IS THE SUBJECT OF THIS CERTIFICATION IS MERCURY FREE AND WAS NOT EXPOSED TO ANY RADIOACTIVE SOURCE. MATERIAL DOES NOT CONTAIN ANY POLYBROMINATED BIPHENYLS (PBB) OR POLYBROMINATED DIPHENYL ETHERS (PBDE). NIVELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.										THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE													



PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Shipment Details						Final Destination Branch - TOR		
Order No	Line No	Item No	Description	BOL No				
5287876	2	1907.MO	3.0000.RD.4140.ALLOY.HR.Q & T.SR, CUT TO 48 IN (+ .1250/- .0000 IN) - LSF.A193-B7.264.0000-288.0000 SPECIFICATIONS: ASTM A304 3AND SAW CUTTING	3731490-2				
Purchase Order No	Part Number		Ordered Qty	Invoice Qty				
41321			1.00 PCS	AT TIME OF DELIVERY				
Details	ALL WORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS							
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Supped Qty(LBS)	
122291825			H1024	1			98.2270	

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned.

Reviewed by Authorized Castle Metals Representative:

**SUE KALOUS**  
Name: \_\_\_\_\_  
Date: **OCT 18 2018**

*L.C. 10/18/18*

Date Printed: 18-OCT-2018 03:00:28 PM

Page 1 of 1

Shipment No:3731490

Ship From:	Sold To:	Ship To:	Deliver To:
A. M. CASTLE & CO. 2150 ARGENTINA ROAD MISSISSAUGA, ON L5N 2K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped	F.O.B.	Freight Terms	Carrier
18-OCT-18	ORIGIN	Prepaid	UPS
Shipment Details			

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-U140QT-R3.00  
 DATE: 18/10/26

PO / BATCH NO.: P0041321/S1220x

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 44  
 QUANTITY INSPECTED: 44  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 3.00"  
 THICKNESS RECEIVED: 3.00"  
 SHEET SIZE ORDERED: -  
 SHEET SIZE RECEIVED: -

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/>	N
CORROSION	Y <input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/>	N
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/>	N
CORRECT THICKNESS	Y <input checked="" type="checkbox"/>	N
PHOTO REQUIRED	Y <input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/>	N
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/>	N
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/>	N
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/>	N
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/>	N

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>A</u>	SIGNED OFF BY: <u>M Lee</u>
DATE: <u>18/10/26</u>	DATE: <u>OCT 26/18</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

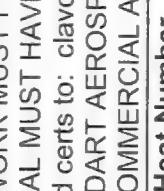
A. M. Castle & Co.

Page 1 of 1

Shipment No:3730261

Ship From:	Sold To:	Ship To:	Deliver To:	
A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	
Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No
17-OCT-18	ORIGIN	Prepaid	MANITOULIN	3730261-2

Shipment Details

Final Destination Branch - TOR				
Order No	Line No	Item No	Description	Invoice Qty
5287876	3	33591.MO	3.2500.RD.4140 ALLOY.HR.Q & T.SRISF.A193-B7 MS 216 0000-288.0000 CUT TO 48 IN (+ .1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: ASTM A304	4.0000 FT
Purchase Order No	Part Number	Ordered Qty		
41321		1.00 PCS		
Details	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie@dart Aero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS			
Delivery No.	Mill/Source	Heat Number	Mech Id	Width (IN)
122289220	TIMKENSTEEL CORPORATION	H9934  W0336 AT	1	Length (IN)
				Shipped Qty(LBS)
				115.0748

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size or material cut by the customer is not to be returned for credit.

Reviewed by Authorized Castle Metals Representative:

Oct 17 2018 Date:

SUE KALOUS Name:

Date Printed: 17-OCT-2018 02:53:23 PM



# CERTIFICATE OF MATERIAL TEST REPORTS

<b>H-A Industries</b> A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327										<b>Customer:</b> A. M. Castle & Co. 1420 Kensington Road Suite 220 Oak Brook, IL 60523						
<b>MANUFACTURER (MILL)</b> TIMKENSTEEL CORPORATION					<b>CUST. ORDER NO.</b>											
<b>IC</b> 33591	<b>HEAT NO.</b> <u>W0336</u>	<b>MECHANICAL ID</b> H9934		<b>ORDER NO.</b> 11807630		<b>SHIP QUANTITY</b> 7815			<b>DATE</b> 16-JUL-18							
<b>DESCRIPTION OF MATERIAL</b>																
3.2500.RD.4140 ALLOY, HR.Q & T, SR/SF, A193-B7, MS.216.0000-288.0000																
<b>CHEMICAL ANALYSIS %</b>																
C .40	Mn .96	P .008	S .020	Si .22	Cu .22	Ni .12	Cr .99	Mo .21	Al .030							
<b>JOMINY HARDENABILITY Rc</b>																
1 57 2 56 3 56 4 55 5 53 6 55 7 53 8 54 9 54 10 53 11 51 12 47 13 45 14 43 15 41 16 38 18 38 20 38 22 38 24 38 26 38 28 38 30 38 32 36																
<b>METALLURGICAL</b>																
<b>MACROETCH</b> S: 2 R: 2 C: 3			<b>NAFTA YES</b>	<b>GRAIN SIZE 5</b>												
	<b>REDUCTION RATIO</b> 94.5	<b>INGOT CAST</b> YES	<b>FROM IC</b> 14808													
<b>COUNTRY OF MANUFACTURE</b> United States	<b>COUNTRY OF MELT</b> US															
<b>HEAT TREATMENT</b>																
<b>AUSTENITIZE MINUTES</b> 7	<b>AUSTENITIZE TEMP °F</b> 1550	<b>TEMPER MINUTES</b> 58	<b>TEMPER TEMP °F</b> 1225	<b>WATER QUENCH TEMP</b> 80												
<b>HARDNESS</b>						<b>MECHANICAL</b>										
<b>Location</b> SURF SURF MID	<b>Type</b> HBW HBW HBW	307 312 298	<b>Location</b> MID	<b>Type</b> HBW	316	<b>Location</b> MID MID	<b>Tensile PSI</b> 138277 125700	<b>Yield .2% PSI</b> 117332 103000	<b>ELONG 2" %</b> 21.2 20	<b>R.A. %</b> 62.8 65.1						
<b>CONFORMANT TO SPECIFICATIONS</b>																
ASTM A193-17 GR B7 ASTM A322-13 <u>ASTM A29-16</u> ASTM A434-17 CLASS BC ASTM A304-16 ASTM A962-17 ASME SA193-17 ED B7 HA IND. QUALITY MANUAL ISO 9001:2015 ISSUE 1 REV. 1 12/8/17 UNS# G41400 EN 10204:2004 TYPE 3.1																
3) T:130300 Y:108700 E:21 RA:65.2 4) T:140904 Y:122006 E:20.4 RA:61.1																

H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1

H-A CERTIFIES THAT THE METAL WHICH IS THE SUBJECT OF THIS CERTIFICATION IS MERCURY FREE AND WAS NOT EXPOSED TO ANY RADIOACTIVE SOURCE. MATERIAL DOES NOT CONTAIN ANY POLYBROMINATED BIPHENYLS (PBB) OR POLYBROMINATED DIPHENYL ETHERS (PBDE). NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL

THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE

NAME: JAN L. CARUSO  
 TITLE: MANAGER OF TECHNICAL SERVICES

*Jan L. Caruso*  
 SIGNATURE:

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-414027-3.250  
 DATE: 18/10/26

PO / BATCH NO.: P0041321/S112007

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 44  
 QUANTITY INSPECTED: 44  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 3.250"  
 THICKNESS RECEIVED: 3.250"  
 SHEET SIZE ORDERED: -  
 SHEET SIZE RECEIVED: -

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>(N)</u>	
CORRECT FINISH	<u>(Y)</u> N	
CORROSION	Y <u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u> N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u> N	<u>ASTM A29 (ENG Approved)</u>
CORRECT THICKNESS	<u>(Y)</u> N	
PHOTO REQUIRED	Y <u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u> N	<u>HT: WD 336</u>
CORRECT MATERIAL IDENTIFICATION	<u>(Y)</u> N	
CORRECT M# ON THE MATERIAL	<u>(Y)</u> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<u>(Y)</u> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>(N)</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u>M.Lee</u>
DATE: <u>18/10/26</u>	DATE: <u>OCT 28/18</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

A. M. Castle & Co.

Page 1 of 1

Shipment No:3730261

Ship From:	Sold To:	Ship To:	Deliver To:	
A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	
Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No
17-OCT-18	ORIGIN	Prepaid	MANITOULIN	3730261-2

Shipment Details

Shipment Details		Final Destination Branch - TOR			
Order No	Line No	Item No	Description	Ordered Qty	Invoice Qty
5287876	4	41417.MO	5.0000.RD.4140.ALLOY.HR.Q & T.SR/SF.285/321 BHN.240.0000-288.0000 CUT TO 48 IN ( + .1250/- .0000 IN) - BAND SAW CUTTING SPECIFICATIONS: ASTM A304	1.00 PCS	4.0000 FT
Purchase Order No	Part Number				
41321					
Details	All PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoe@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS				
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)
122289421	TIMKENSTEEL CORPORATION	Q6876 NW 2 0 3 6	Q6876	1	272.8513

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Reviewed by Authorized Castle Metals Representative:

0CT172018 Date: **SUPERKALOUS**

Date Printed: 17-OCT-2018 02:53:23 PM

# CERTIFICATE OF MATERIAL TEST REPORTS

<b>H-A Industries</b> A Division of A. M. Castle & Co. 4527 Columbia Avenue Hammond, IN 46327										<b>Customer:</b> A. M. Castle & Co. 1420 Kensington Road Suite 220 Oak Brook, IL 60523													
<b>MANUFACTURER (MILL)</b> TIMKENSTEEL CORPORATION					<b>CUST. ORDER NO.</b>																		
IC	HEAT NO.	MECHANICAL ID			ORDER NO.				SHIP QUANTITY			DATE											
41417	W2036	Q6876			11862152				8200			29-AUG-18											
<b>DESCRIPTION OF MATERIAL</b>																							
5.0000.RD4140 ALLOY.HR.Q & T.SR/SF.285/321 BHN.240.0000-288.0000																							
<b>CHEMICAL ANALYSIS %</b>																							
C	MN	P	S	SI	CU	NI	CR	MO	AL														
.41	.98	.009	.031	.24	.26	.16	.95	.21	.037														
<b>JOMINY HARDENABILITY Rc</b>																							
1 59	2 58	3 57	4 56	5 56	6 55	7 55	8 55	9 55	10 53	11 51	12 49	13 46	14 44	15 41	16 40	18 38	20 32	22 30	24 30	26 32	28 32	30 32	32 32
<b>METALLURGICAL</b>																							
<b>MACROETCH</b> S: 2 R: 2 C: 3				<b>NAFTA</b> YES	<b>GRAIN SIZE</b> 5																		
<b>CONTINUOUS CAST</b> YES	<b>REDUCTION RATIO</b> 22				<b>FROM IC</b> 18675																		
<b>COUNTRY OF MANUFACTURE</b> United States	<b>COUNTRY OF MELT</b> US																						
<b>HEAT TREATMENT</b>																							
<b>AUSTENITIZE MINUTES</b> 63	<b>AUSTENITIZE TEMP °F</b> 1675	<b>TEMPER MINUTES</b> 68	<b>TEMPER TEMP °F</b> 1320	<b>WATER QUENCH TEMP</b> 95																			
<b>HARDNESS</b>						<b>MECHANICAL</b>																	
Location	Type		Location	Type		Location	Tensile PSI	Yield .2% PSI	Elong 2" %	R.A. %													
SURF	HBW	301	MID	HBW	289	MID	126345	99877	20.4	56.4													
<b>CONFORMANT TO SPECIFICATIONS</b>																							
ASTM A29-16 ASTM A322-13 ASTM A304-16 ASTM A434-17 CLASS BC UNS# G41400																							

H-A INDUSTRIES CERTIFIES THAT APPROPRIATE INFORMATION IS TAKEN FROM TEST REPORTS FURNISHED TO US BY OUR SUPPLIER AND WHICH ARE ON FILE IN OUR OFFICE. H-A INDUSTRIES CERTIFIES THAT THE MATERIAL LISTED HEREIN HAS BEEN INSPECTED AND TESTED IN ACCORDANCE WITH METHODS PRESCRIBED IN THE GOVERNING SPECIFICATIONS. THE RESULTS OF INSPECTION AND TESTING CONFORM TO THE SPECIFICATIONS LISTED INCLUDING ASTM A370 LATEST REVISION AND EN 10204:2004 3.1.

H-A CERTIFIES THAT THE METAL WHICH IS THE SUBJECT OF THIS CERTIFICATION IS MERCURY FREE AND WAS NOT EXPOSED TO ANY RADIOACTIVE SOURCE. MATERIAL DOES NOT CONTAIN ANY POLYBROMINATED BIPHENYLS (PBB) OR POLYBROMINATED DIPHENYL ETHERS (PBDE). NO WELD OR WELD REPAIR WAS PERFORMED ON THIS MATERIAL.

THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL STATUTE.

NAME: JAN L. CARUSO  
 TITLE: MANAGER OF TECHNICAL SERVICES

*Jan L. Caruso*  
 SIGNATURE:

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140QT-R5.000  
 DATE: 18/10/26

PO / BATCH NO.: P0041321/S122008

MATERIAL CERT REC'D: Y  
 QUANTITY RECEIVED: 4ft  
 QUANTITY INSPECTED: 4ft  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 5.000"  
 THICKNESS RECEIVED: 5.000"  
 SHEET SIZE ORDERED: —  
 SHEET SIZE RECEIVED: ✓

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <u>N</u>	
CORRECT FINISH	<u>Y</u> N	
CORROSION	Y <u>N</u>	
CORRECT GRAIN DIRECTION	<u>Y</u> N	
CORRECT MATERIAL PER M-DRAWING	<u>Y</u> N	<u>ASTM A27 (EN6 approved)</u>
CORRECT THICKNESS	<u>Y</u> N	
PHOTO REQUIRED	Y <u>N</u>	
CORRECT REF # TO LINK CERT	<u>Y</u> N	<u>HT-W2026</u>
CORRECT MATERIAL IDENTIFICATION	<u>Y</u> N	
CORRECT M# ON THE MATERIAL	<u>Y</u> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<u>Y</u> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <u>N</u>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>AT</u>	SIGNED OFF BY: <u>M Lee</u>
DATE: <u>18/10/26</u>	DATE: <u>OCT 26/18</u>

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in